

## 1 ABSTRACT OF THE DISCLOSURE

2  
3 Methods and apparatus for supporting multiple UTOPIA bus  
4 masters on a single UTOPIA bus include coupling two UTOPIA bus  
5 masters via three signal lines (Ready, Request, and Grant),  
6 designating one of the masters a primary master and the other a  
7 secondary master, and coupling both bus masters to the same UTOPIA  
8 bus. When receiving cells from the UTOPIA bus, both masters  
9 accept cells and screen them (with a lookup table) to determine  
10 which cells are addressed to them. When transmitting cells, the  
11 primary master normally controls polling and PHY selection. The  
12 secondary master asserts the Request line during polling to  
13 indicate that it has a cell to send to a PHY that has responded  
14 positively to the polling. In response to the Request signal, the  
15 primary master asserts the Grant line and control of the bus is  
16 given to the secondary master for the next cell cycle. The  
17 presently preferred embodiment utilizes an arbitration scheme to  
18 assure fairness in allocating control of the bus.